

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/14303

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 B21J15/02 B21J15/36

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 B21J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 23213 A (EIBES KERB KONUS GMBH ; TALBOT GMBH & CO KG (DE); UNIV DRESDEN TECH) 27 April 2000 (2000-04-27) page 1, line 1-6; figures 1,2 page 5, line 11 -page 6, line 28	1-7
X	DE 196 30 488 A (BOELLHOFF GMBH VERBINDUNGS UND) 29 January 1998 (1998-01-29) column 3, line 58-66; figures 3,6,8	1
A	US 5 277 049 A (ENDO ITSUO) 11 January 1994 (1994-01-11) column 1, line 12 -column 2, line 2; figures 1,2	8

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

T later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the International search

Date of mailing of the International search report

30 March 2004

14/04/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel: (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Augé, M

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/14303

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 0023213	A	27-04-2000	DE	19847980 A1		20-04-2000
			AT	238116 T		15-05-2003
			CA	2355343 A1		27-04-2000
			WO	0023213 A1		27-04-2000
			DE	59905226 D1		28-05-2003
			DK	1121213 T3		07-07-2003
			EP	1121213 A1		08-08-2001
			ES	2195642 T3		01-12-2003
			PT	1121213 T		31-07-2003
			US	6405420 B1		18-06-2002
DE 19630488	A	29-01-1998	DE	19630488 A1		29-01-1998
US 5277049	A	11-01-1994	JP	6009830 U		08-02-1994
			AU	655686 B2		05-01-1995
			AU	2817392 A		05-08-1993
			DE	4237621 A1		05-08-1993
			GB	2263879 A ,B		11-08-1993